

## Prof. HALUK YÜCEL

### Personal Information

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### International Researcher IDs

ORCID: 0000-0002-3084-9596

Publons / Web Of Science ResearcherID: G-6489-2011

ScopusID: 7003421943

Yoksis Researcher ID: 3905

### Education Information

Doctorate, Gazi University, Fen Bilimleri Enstitüsü, Fizik (Dr), Turkey 1984 - 1992

Postgraduate, Hacettepe University, Fen Bilimleri Enstitüsü, Nükleer Enerji Mühendisliği (YI) (Tezli), Turkey 1981 - 1984

Undergraduate, Hacettepe University, Mühendislik Fakültesi, Fizik Mühendisliği Bölümü, Turkey 1976 - 1981

### Foreign Languages

English, B2 Upper Intermediate

### Certificates, Courses and Trainings

Other, Mürettebatsız Hava Araçlarına Monte Edilen Radyasyon İzleme Cihazlarında Güncel Gelişmeler, Nükleer Güç Santralinin Korunması Çalıştayı, T. C. İçişleri Bakanlığı Jandarma ve Sahil Güvenlik Akademisi, 2023

Other, Kirli Bombalar ve Nükleer Sahtecilik, Nükleer Güç Santralinin Korunması Çalıştayı, T. C. İçişleri Bakanlığı Jandarma ve Sahil Güvenlik Akademisi, 2023

Other, Technical Meeting Performance Testing and Specification of Spectroscopic and Energy Discrimination Algorithms Used for Nuclear Security, Uluslararası Atom Enerji Ajansı (IAEA), 2023

Other, Radyasyon Dedeksiyonu ve İzlenmesinde Personelsiz Hava Sistemlerinin Kullanılması, DRONE Temelli Radyasyon İzleme, SSB OTAG, 2023

Security, Technical Meeting on the Use of Uncrewed Aerial Systems for Radiation Detection and Surveillance, Uluslararası Atom Enerji Ajansı (IAEA), 2022

Measurement and Evaluation, TS EN IEC/ISO 17020 STANDARD EĞİTİMİ VE DENETÇİ EĞİTİMİ (MODÜL A;B), TÜRKAK-TÜRK AKREDİTASYON KURUMU, 2018

### Dissertations

Doctorate, 137 Cs radyoizotopunun toprak ile etkileşme mekanizmalarının incelenmesi, Gazi University, Kore Dili ve Edebiyatı Anabilim Dalı, Fizik (Dr), 1992

Postgraduate, İnce Film Dedektör Yapımı ve 252Cf Filyon Ürünleri İle Bazı Uygulamalar, Hacettepe University, Fen Bilimleri Enstitüsü, Nükleer Enerji Mühendisliği (YI) (Tezli), 1984

## Research Areas

Physics

## Academic Titles / Tasks

Professor, Ankara University, Nükleer Bilimler Enstitüsü, Nükleer Bilimler Enstitüsü Müdürü, 2021 - Continues

Professor, Ankara University, Nükleer Bilimler Enstitüsü, Medikal Fizik Anabilim Dalı Başkanı, 2018 - Continues

Professor, Ankara University, Nükleer Bilimler Enstitüsü, Medikal Fizik Bölümü, 2010 - Continues

Associate Professor, Nükleer Fizik, 1997 - 2009

Research Assistant, Gazi University, Fen Fakültesi, Fizik, 1983 - 1986

## Academic and Administrative Experience

Director of The Institution, Ankara University, Nükleer Bilimler Enstitüsü, Medikal Fizik Bölümü, 2021 - Continues

Head of Department, Ankara University, Nükleer Bilimler Enstitüsü, Medikal Fizik Bölümü, 2018 - Continues

## Courses

102526 RADYASYONDAN KORUNMA FİZİĞİ VE ZIRHLAMA, Doctorate, 2022 - 2023, 2020 - 2021, 2016 - 2017, 2015 - 2016, 2014 - 2015

101516 RADYASYON ÖLÇÜM YÖNTEMLERİ, Postgraduate, 2023 - 2024, 2018 - 2019, 2017 - 2018

101517 Radyasyon Ölçüm Yöntemleri Laboratuvarı, Postgraduate, 2020 - 2021

102510 NÖTRON AKTİVASYONU VE ÖLÇÜM LABORATUVARI , Doctorate, 2020 - 2021

101617 EXPERIMENTS FOR RADIATION MEASUREMENT LABORATORY, Postgraduate, 2020 - 2021

102527 İleri Gama Spektroskopisi Laboratuvarı II, Doctorate, 2020 - 2021

101538 RADYASYONDAN KORUNMA FİZİĞİ, Postgraduate, 2020 - 2021

101638 RADIATION PROTECTION, Postgraduate, 2020 - 2021

101513 NÖTRON VE REAKTÖR FİZİĞİNE GİRİŞ, Postgraduate, 2018 - 2019, 2017 - 2018

101526 RADYASYONDAN KORUNMA, Postgraduate, 2018 - 2019

101616 RADIATION DETECTION AND MEASUREMENT METHODS, Postgraduate, 2018 - 2019, 2016 - 2017, 2015 - 2016

102511 İLERİ NÖTRON VE REAKTÖR FİZİĞİ, Doctorate, 2018 - 2019

102510 İLERİ RADYASYON DEDEKSİYONU LABORATUVARI, Doctorate, 2018 - 2019, 2016 - 2017

RADYASYON ÖLÇÜM YÖNTEMLERİ LABORATUVARI, Postgraduate, 2018 - 2019, 2015 - 2016, 2014 - 2015, 2013 - 2014, 2012 - 2013

FZM 461 NÜKLEER EMNİYET VE NÜKLEER GÜVENLİK DENETİMİ TEMELLERİ, Undergraduate, 2018 - 2019, 2017 - 2018, 2016 - 2017

102526 RADYASYONDAN KORUNMA FİZİĞİ VE ZIRHLAMA, Postgraduate, 2018 - 2019

101538 RADIATION PROTECTION, Postgraduate, 2018 - 2019

İLERİ NÖTRON VE REAKTÖR FİZİĞİ, Postgraduate, 2017 - 2018

102535 İLERİ GAMA SPEKTROSKOPİ LABORATUVARI, Postgraduate, 2017 - 2018

İLERİ NÖTRON VE REAKTÖR FİZİĞİ, Doctorate, 2016 - 2017, 2011 - 2012, 2010 - 2011

RADYASYONDAN KORUNMA, Postgraduate, 2016 - 2017, 2014 - 2015, 2013 - 2014, 2012 - 2013

FZM 447 RADYASYON ÖLÇÜM YÖNTEMLERİ, Undergraduate, 2016 - 2017, 2015 - 2016

Radiation Protection, Postgraduate, 2016 - 2017

NÖTRON VE REAKTÖR FİZİĞİNE GİRİŞ, Postgraduate, 2016 - 2017, 2015 - 2016, 2014 - 2015, 2013 - 2014, 2012 - 2013, 2011 - 2012, 2010 - 2011

101516 RADYASYON DEDEKSİYON VE ÖLÇÜM YÖNTEMLERİ, Postgraduate, 2016 - 2017

102535 İLERİ GAMA SPEKTROSKOPİ LABORATUVARI , Doctorate, 2015 - 2016  
102510 İLERİ RADYASYON DEDEKSİYON VE ÖLÇÜM LABORATUVARI , Doctorate, 2015 - 2016  
101514 NÜKLER ANALİZ TEKNİKLERİ, Postgraduate, 2015 - 2016  
101516 RADYASYON DEDEKSİYONU VE ÖLÇÜM YÖNTEMLERİ, Postgraduate, 2015 - 2016  
FZM 458 RADYASYON ÖLÇÜM LABORATUVARI, Undergraduate, 2015 - 2016  
NÖTRON ÖLÇÜMÜ VE AKTİVASYON LABORATUVARI, Postgraduate, 2014 - 2015, 2013 - 2014, 2012 - 2013  
İLERİ GAMA SPEKTROSKOPİSİ LABORATUVARI, Postgraduate, 2014 - 2015, 2013 - 2014, 2012 - 2013  
İLERİ GAMA SPEKTROSKOPİSİ LABORATUVARI, Doctorate, 2014 - 2015  
RADYASYONDAN KORUNMA FİZİĞİ VE ZIRHLAMA, Postgraduate, 2014 - 2015  
FZM 455 NÜKLEER FİZİK LABORATUVARI, Undergraduate, 2014 - 2015  
NÜKLEER ANALİZ TEKNİKLERİ, Postgraduate, 2014 - 2015, 2012 - 2013, 2011 - 2012, 2010 - 2011  
İLERİ RADYASYON DEDEKSİYON VE ÖLÇÜM LABORATUVARI, Doctorate, 2014 - 2015, 2013 - 2014, 2010 - 2011  
RADYASYON ÖLÇÜM YÖNTEMLERİ, Postgraduate, 2014 - 2015, 2013 - 2014, 2012 - 2013  
NÜKLER ANALİZ TEKNİKLERİ, Postgraduate, 2013 - 2014  
RADYASYONDAN KORUNMA, Doctorate, 2013 - 2014, 2012 - 2013  
İLERİ RADYASYON DEDEKSİYONU LABORATUVARI, Doctorate, 2012 - 2013, 2011 - 2012  
NÜKLER FİZİK, Undergraduate, 2011 - 2012

## Advising Theses

Yücel H., Pediatrik radyolojide 5-9 yaş aralığında çocuk dozimetrisi fantomu geliştirilmesi için farklı malzemelerin doku eşdeğerliğinin CdTe X-ışın spektroskopisi tekniğiyle incelenmesi ve Bilgisayarlı Tomografide standart fantomla elde edilen dozimetrik sonuçlarla karşılaştırılması, Doctorate, S.ZÜMRÜT(Student), 2026  
Yücel H., BETA KALİBRASYONUNDA KULLANILMAK ÜZERE IŞINLAMA SİSTEMİ GELİŞTİRİLMESİ VE BETA DOZ HOMOJENLİĞİNİ ETKİLEYEN PARAMETRELERİN FARKLI KOŞULLARDA İNCELENMESİ, Doctorate, İ.DEMİREL(Student), 2026  
Yücel H., Y-90 Radyoembolizasyon Tedavisinde Akciğer-Karaciğerde Soğurulan Dozun Belirlenmesi için Fantom Tasarımı ve PSD Dozimetrik Yöntemle Doz Dağılımının İncelenmesi, Doctorate, A.ÖZER(Student), 2025  
Yücel H., Tomografi Çekiminde Meme Glandüler Dokusunda Soğurulan Dozun İncelenmesi için Türk Kadınına Özgü Antropomorfik Meme Fantomunun Tasarımı ve 3B Yazıcı Tekniği ile Üretilmesi, Doctorate, A.SAFİ(Student), 2025  
Yücel H., Antropomorfik Baş-Boyun Fantomunda 6 MeV Elektron Demetiyle Verilen Cilt Dozunun PSD ve EBT3 Film Dozimetri Yöntemleri ile İncelenmesi ve TPS ile Öngörülen Dozla Karşılaştırılması, Postgraduate, A.VARANOK(Student), 2025  
Yücel H., MEASUREMENT OF ORAL MUCOSA AND PAROTID GLANDS DOSES AT EXTERNAL PHOTON BEAM AT ANTROPOMORPHIC HEAD-NECK PHANTOM BY USING PSD AND EBT3 FILM DOSIMETER METHODS AND INVESTIGATION OF ITS SUITABILITY FOR QUALITY ASSURANCE TESTS IN RADIOTHERAPY, Postgraduate, C.İLTEMİŞ(Student), 2024  
Yücel H., INVESTIGATION OF ZnS(Ag) BASED NEUTRON DETECTION, DETECTOR SIMULATION, DESIGN AND DEVELOPMENT OF AN ACTIVE NEUTRON DETECTOR SYSTEM, Doctorate, T.GÜRDAL(Student), 2024  
Yücel H., Alfa ve Beta Yayımlayıcı Radyonüklitlerin Kontaminasyon Ölçümleri İçin Kullanılan Yüzey Kontaminasyon Monitörünün Kalibrasyonu İçin Bir Yöntem Geliştirilmesi ve ZnS:Ag Sintilatör Temelli Yüzey Kontaminasyon Monitör Cihazı ile Yüzeysel <sup>241</sup>Am, <sup>90</sup>Sr/ <sup>90</sup>Y ve Düşük Aktiviteli Kontaminasyonun Ölçümüne Uygulanması, Postgraduate, U.ŞİMŞEKÇİ(Student), 2024  
Yücel H., Bostancı G. E., DEVELOPMENT OF AN OPTIMIZATION ALGORITHM FOR DOSE CONVERSION FROM GAMMA-RAY SPECTRUM USING G(E) FUNCTION TO ESTIMATE AMBIENT DOSE EQUIVALENT RATE WITH NaI(Tl), LaBr<sub>3</sub>(Ce) SCINTILLATION AND CdZnTe SEMICONDUCTOR DETECTORS, Postgraduate, N.CEREN(Student), 2024  
Yücel H., X-Işını Tanısal Enerji Aralığında Polistren Esaslı Exradin W1 Plastik Sintilatör Dedektörün Doz Tepkisinin İncelenmesi, Postgraduate, N.GÖKÇEK(Student), 2024  
Yücel H., DEVELOPMENT OF A FUZZY LOGIC BASED ISOTOPE IDENTIFICATION ALGORITHM FOR CHARACTERIZATION OF RADIOACTIVE SOURCES MEASURED WITH A LaBr<sub>3</sub>(Ce) SCINTILLATION DETECTOR , Postgraduate,

A.BARUT(Student), 2023

Yücel H., Çizgisel ve disk biçimli praseodim-142(142PR) brakiterapi kaynakların LABR3:CE ve HPGE dedektörleri ile aktivite karakterizasyonunun yapılması ve organ spesifik fantomlar üzerinde gama/beta doz hızı oranlarının hesaplanması, Postgraduate, M.AZE(Student), 2022

Yücel H., Antropomorfik Yetişkin Baş-Boyun Fantomu Geliştirilmesi, Doz Dağılımlarının Plastik Sintilatör Dozimetre Tekniği ile Ölçülmesi ve Monte Carlo Simülasyon yöntemiyle Hesaplanan Sonuçlar ile Karşılaştırılması, Postgraduate, G.ÜNAL(Student), 2022

Yücel H., Brakiterapi amaçlı üretilen 142PR beta kaynağı kullanılarak prostat grubu fantomda komşu yapıların (rektum+mesane) alabileceği dozların plastik sintilatör dozimetri tekniği ile belirlenmesi, Postgraduate, T.KAVALCI(Student), 2022

YÜCEL H., ÜÇ BOYUTLU(3D) YAZICIDA DOKU EŞDEĞERİ MALZEMELERDEN TEK POZİSYON STATİK SAĞ EL FANTOMU ÜRETİLMESİ VE ELDE CİLT DOZUNUN PLASTİK SİNTİLATÖR DOZİMETRE(PSD) YÖNTEMİ İLE BELİRLENMESİ, Postgraduate, C.GÜNEŞ(Student), 2021

YÜCEL H., Çizgisel ve Disk Biçimli Praseodim-142(142Pr) Brakiterapi Kaynakların LaBr3:Ce ve HPGe Dedektörleri ile Aktivite Karakterizasyonunun Yapılması ve Organ Spesifik Fantomlar Üzerinde Gama/Beta Doz Hızı Oranlarının Hesaplanması, Postgraduate, M.AZE(Student), 2021

YÜCEL H., YÜKSEK DOZ HIZLI PRASEODİM-142 BRAKİTERAPİ KAYNAĞIN REAKTÖRDE ÜRETİLMESİ VE SEÇİLEN HEDEF ORGANLARA ÖZGÜ FANTOMLARDA UYGULANABİLİRLİĞİNİN DOZİMETRİ TEKNİKLERİ İLE İNCELENMESİ, Doctorate, K.DURUER(Student), 2021

Yücel H., Radyolojik güvenlik amaçlı kullanım için NAI(TI) dedektörlü gama spektroskopi tekniğinin yerinde taramayla radyoizotop tanımlanması ve doz hızı ölçümlerine uygulanabilirliğinin incelenmesi, Postgraduate, T.SARİ(Student), 2021

YÜCEL H., PLA malzemeden yapılmış göz fantomunda radyokromik film dozimetri tekniği kullanarak 142PR beta doz dağılımının incelenmesi, Postgraduate, M.KAYAN(Student), 2020

YÜCEL H., LABR3(CE) sintilasyon dedektörleri ile elde edilen gama spektrumlarından radyoizotop tanımlanması için bayesian yöntemi ile bir algoritma geliştirilmesi, Postgraduate, S.SAATCI(Student), 2020

YÜCEL H., 90Sr / 90Y beta kaynağı kullanılarak beta dedektörlerinin kalibrasyonu ile ilgili prosedür oluşturulması, Postgraduate, F.BAYKUT(Student), 2020

YÜCEL H., 235U zenginlik tayininde eş-eksenli grid elektrotlu CdZnTe dedektörlerin uygulanabilirliğinin incelenmesi ve maskelenmiş gama spektrumlarının çözülmesi için algoritma geliştirilmesi, Postgraduate, S.BALCI(Student), 2019

Yücel H., Development of novel shielding material based on epoxy matrix loaded by high-Z chemical powders used for mammographic, diagnostic and industrial X and gamma ray energy range, and determination of its photon attenuation properties by ionization chamber method with use of standard beam qualities, Postgraduate, İ.DEMİREL(Student), 2019

YÜCEL H., Measurement of uranium, thorium and potassium activity content in Beylikova-Sivrihisar complex ore site and estimation of dose rates to miners, Postgraduate, S.ÖVÜÇ(Student), 2019

YÜCEL H., Sahada gama spektrometrik aktivite ölçümü için hpge dedektörünün 238U, 232Th, 40K içeren özel bloklar kullanılarak kalibrasyonunun yapılması ve saha ölçümüne uygulanması, Postgraduate, M.ÖZGÜR(Student), 2019

YÜCEL H., Toz ve metalik formdaki numunelerin temel parametreler yöntemi kullanılarak edxrf spektroskopisi ile kantitatif analizi, Postgraduate, O.AKDUMAN(Student), 2019

YÜCEL H., Epoksi esaslı doku eşdeğeri fantomların pediatrik radyolojide uygunluğunun incelenmesi, Postgraduate, A.SAFİ(Student), 2019

YÜCEL H., Epoksi esaslı mamografik görüntü kalitesi fantomu geliştirilmesi ve mamografik X-ışın sistemleri ile testlerinin yapılması, Postgraduate, R.BORA(Student), 2017

YÜCEL H., Mamografi görüntüleri kullanılarak glandülerite/yağ oranlarının belirlenmesi ve epoksi esaslı meme dokusu eşdeğer fantomun X-ışın spektroskopisi ile karakterizasyonu, Postgraduate, G.YEĞİN(Student), 2017

YÜCEL H., Mamografi sistemleri için doku eşdeğeri fantom geliştirilmesi, Monte Carlo simülasyon tekniği ve X-ışını spektroskopisi yöntemi ile karakterizasyonu, Doctorate, Ş.ÇUBUKÇU(Student), 2017

YÜCEL H., Mide kanseri tedavisinde üç boyutlu konformal radyoterapi, yoğunluk ayarlı radyoterapi ve volumetrik ark terapi tedavi tekniklerinin dozimetrik karşılaştırılması, Postgraduate, A.TEMÜR(Student), 2017

YÜCEL H., 226Ra, 152Eu içeren epoksi matrisli ve U, Th, K içeren selülöz matrisli marinelli geometride radyoaktif kalibrasyon kaynaklarının hazırlanması ve farklı tip HPGe dedektörlerle karakterizasyonu, Postgraduate, S.ZÜMRÜT(Student), 2017

YÜCEL H., ISO s-137Cs (0,662meV) demet kalitesinde yaklaşık doku eşdeğeri olan BC-408 plastik sintilatör dedektörün tepkisi ile doz arasındaki ilişkinin incelenmesi, Postgraduate, Ö.EMRAH(Student), 2016

Yücel H., X-IŞINI ÖLÇEN RADYASYON DEDEKTÖRLERİNİN KALİBRASYONU VE İŞINLANMASI İÇİN 40 – 100 kVp TÜP GERİLİMİ ARALIĞINDAKİ NIST/ADCL DEMET KALİTELERİNİN ELDE EDİLMESİ, KARAKTERİZE EDİLMESİ VE HAVA-KERMA KALİBRASYON SABİTİNİN BELİRLENMESİ İÇİN PROSEDÜR OLUŞTURULMASI, Postgraduate, E.VARLI(Student), 2016

YÜCEL H., Foton dedektörlerinin kalibrasyonu için bazı nist/adcl demet kalitelerinin karakterize edilmesi ve hava-kerma kalibrasyon sabitinin belirlenmesi için bir prosedür oluşturulması, Postgraduate, E.ARAN(Student), 2016

YÜCEL H., Nötron aktivasyonu ile 142Pr ve 170Tm radyoizotoplarının üretilmesi ve birincil ve ikincil radyoaktivite ölçme yöntemleri kullanılarak standardizasyonlarının yapılması, Postgraduate, E.YELTEPE(Student), 2016

YÜCEL H., 40 – 100 kVp X-ışını demet kalitelerinde borosilikat cam ve boroksit ile kalsiyum sülfat yüklemeli parafinin zayıflatma özelliklerinin incelenmesi ve ön kol veya bacağı temsil eden bir su ekstremite fantomu ile karşılaştırılması, Postgraduate, A.İNCİ(Student), 2014

YÜCEL H., 241Am-Be nötron alanında epitermal nötron spektrum  $\alpha$ -biçim parametresinin 98Mo, 55Mn ve 197Au üçlü monitör yöntemiyle belirlenmesi, Postgraduate, A.KOLBAŞI(Student), 2014

YÜCEL H., Binalarda kaplama malzemesi olarak kullanılan seramik ve mermer örneklerinin EDXRF yöntemiyle kimyasal bileşiminin belirlenmesi ve radyolojik doz değerlendirmesi için gama spektrometrik yöntemle radyoaktivite içeriklerinin ölçülmesi, Postgraduate, H.GÖKMEN(Student), 2014

YÜCEL H., Uranyum zenginlik ölçer prensibine göre uranyum malzemelerde 235U zenginliğinin ölçülmesinde belirli bir kaynak-dedektör geometrisinde soğurucu ve kolimatör etkisinin incelenmesi, Postgraduate, A.ÖZER(Student), 2014

YÜCEL H., Diagnostik ve mamografik X-ışın demetlerine karşı koruyucu malzemelerin, plakaların ve farklı insan dokularını temsil eden fantomların farklı demet kalitelerinde x-ışınlarını zayıflatma özelliklerinin belirlenmesi, Postgraduate, E.GÜLLÜOĞLU(Student), 2013

YÜCEL H., Yaklaşık doku eşdeğeri olan BC-408 plastik sintilatörün radyolojik bölgedeki 40-120 keV X-ışınlarına ve 60-1333 keV gama ışınlarına karşı tepkisinin incelenmesi, Postgraduate, Y.ENGİN(Student), 2012

YÜCEL H., 71Ga, 75As, 115In, 152Sm, 158Gd, 164Dy, 170Er, 179Hf izotoplarının (n,?) tepkimeleri için etkin rezonans enerjilerinin çift monitör yöntemi ile belirlenmesi, Doctorate, M.GÜRAY(Student), 2008

YÜCEL H., 71Ga, 74As, 133Cs, 139La, 148Nd, 164Dy, 165Ho ve 186W izotoplarının (n,y) tepkimeleri için termal nötron ve rezonans integral tesir kesitlerinin 55Mn monitörü kullanılarak ölçülmesi, Doctorate, M.KARADAĞ(Student), 2003

YÜCEL H., İzotropik nötron alanında ışınlanan sonlu silindir numune geometrisi için numune miktarı ile termal nötron öz soğurma faktörünün ilişkisi, Postgraduate, M.GÜRAY(Student), 2002

YÜCEL H., Ters elektrodlu germanyum dedektörle numunelerdeki uranyumun doğrudan ölçülmesi için gama spektrometrik bir metod, Postgraduate, İ.ERGİN(Student), 2000

## Jury Memberships

Doctorate, Doctorate, Ankara Üniversitesi, September, 2024

## Published journal articles indexed by SCI, SSCI, and AHCI

- I. Design and Development of a Portable Neutron Detection System Based on a 6 Li-Doped ZnS(Ag) Scintillator**  
Gürdal T., Yücel H.  
NUCLEAR TECHNOLOGY, vol.00, no.00, pp.1-10, 2024 (SCI-Expanded)
- II. Development of a flexible composite based on vulcanized silicon casting with bismuth oxide and characterization of its radiation shielding effectiveness in diagnostic X-ray energy range and medium gamma-ray energies**  
Demirel İ., Yücel H.  
Nuclear Engineering and Technology, vol.56, no.7, pp.2570-2575, 2024 (SCI-Expanded)

- III. **A study on quality control check of dose distribution in blood bags irradiated by  $^{137}\text{Cs}$  source blood irradiator by using EBT3 radiochromic film dosimetry**  
Alan H., Ünal G., Atakul T., Akyürek S., Yücel H.  
RADIATION PHYSICS AND CHEMISTRY, vol.214, 2024 (SCI-Expanded)
- IV. **Application of peak based-Bayesian statistical method for isotope identification and categorization of depleted, natural and low enriched uranium measured by  $\text{LaBr}_3\text{:Ce}$  scintillation detector**  
YÜCEL H., Tüzüner S. S., Massey C.  
Nuclear Engineering and Technology, vol.55, no.10, pp.3913-3923, 2023 (SCI-Expanded)
- V. **Could atmospheric carbon be driving sedimentation?**  
Vinkovic A., Lapytev G., Yaprak G., Slavova K., Joksimovic D., Trostot-Corbic T., Frontasyeva M., Dului O. G., Bylyku E., Shyti M., et al.  
JOURNAL OF SOILS AND SEDIMENTS, vol.22, no.11, pp.2912-2928, 2022 (SCI-Expanded)
- VI. **Investigation of the suitability of new developed epoxy based-phantom for child's tissue equivalency in paediatric radiology**  
YÜCEL H., Safi A.  
NUCLEAR ENGINEERING AND TECHNOLOGY, vol.53, no.12, pp.4158-4165, 2021 (SCI-Expanded)
- VII. **CORRIGENDUM TO: ESTIMATION OF RADIOLOGICAL EXPOSURE LEVELS IN A MINING AREA BASED ON  $^{238}\text{U}$ ,  $^{226}\text{Ra}$ ,  $^{232}\text{Th}$  AND  $^{40}\text{K}$  ACTIVITY MEASUREMENTS: A CASE STUDY FOR BEYLIKOVA-SIVRIHISAR COMPLEX ORE SITE IN TURKEY.**  
Yücel H., Övüç S., Akkaya G., Çakmak Ş.  
Radiation protection dosimetry, vol.192, no.4, pp.530, 2020 (SCI-Expanded)
- VIII. **Neutron self-shielding correction in application of  $k(0)$ -NAA standardization method to determine Mn content in manganese ores**  
AKKAYA G., YÜCEL H., BUDAK M. G.  
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APPLIED RADIATION AND ISOTOPES, Journal Indexed in SCI-E, January 2022  
JOURNAL OF STRATEGIC STUDIES, National Scientific Refreed Journal, January 2022  
RADIATION MEASUREMENTS, Journal Indexed in SCI-E, January 2022  
INTERNATIONAL JOURNAL OF SEDIMENT RESEARCH, Journal Indexed in SCI-E, January 2022  
NUCLEAR INSTRUMENTS AND METHODS IN PHYSICS RESEARCH, SECTION A: ACCELERATORS, SPECTROMETERS, DETECTORS AND ASSOCIATED EQUIPMENT, Journal Indexed in SCI-E, January 2022  
Mugla Journal of Science and Technology, National Scientific Refreed Journal, January 2022  
PHYSICS IN MEDICINE AND BIOLOGY, Journal Indexed in SCI-E, January 2022  
TURKISH JOURNAL OF ENGINEERING AND ENVIRONMENTAL SCIENCES, National Scientific Refreed Journal, January 2022  
RADIATION PROTECTION DOSIMETRY, Journal Indexed in SCI-E, January 2022  
NUCLEAR SCIENCE AND TECHNIQUES/HEWULI, Journal Indexed in SCI-E, January 2022  
A.Ü. Adli Bilimler Dergisi (Journal of Nuclear Forensics), National Scientific Refreed Journal, January 2022  
Journal of Radiation Research and Applied Sciences, Journal Indexed in SCI-E, January 2022  
Theoretical and Applied Physics, Journal Indexed in SCI-E, January 2022  
Turkish Journal Physics, National Scientific Refreed Journal, January 2022  
NUKLEONIKA, Journal Indexed in SCI-E, January 2022  
JOURNAL OF RADIOANALYTICAL AND NUCLEAR CHEMISTRY, Journal Indexed in SCI-E, January 2022

Türk Yer Bilimleri Dergisi, National Scientific Refreed Journal, January 2022

NUCLEAR ENGINEERING AND TECHNOLOGY, Journal Indexed in SCI-E, January 2022

BOREN, Ulusal Bor Araştırma Enstitüsü Projesi, Ankara University, Turkey, October 2019

IEEE TRANSACTIONS ON NUCLEAR SCIENCE, Journal Indexed in SCI-E, May 2019

Project Supported by Public Organizations in Other Countries, UNITY THROUGH KNOWLEDGE FUND Planinska 1, HR-10000 Zagreb, Croatia, Croatia, March 2017

## Scientific Consultations

MUONTEK RADYASYON ÖLÇÜM SİSTEMLERİ TEKNOLOJİ SANAYİ VE TİCARET ANONİM ŞİRKETİ, Project Consultancy, Ankara University, Nükleer Bilimler Enstitüsü, Medikal Fizik Bölümü, Turkey, 2024 - 2025

ALSEM Aşağı Öveçler Mah 1322 cadde No79/3 Çankaya / Ankara adresinde mukim Ulus Vergi Dairesi Vergi No: 059024467 ve Ticaret Sicil No.: 059024467, Tic. Sicil No:185010, Scientific Consultancy, Ankara University, Nükleer Bilimler Enstitüsü, Medikal Fizik Anabilim Dalı Başkanı, Turkey, 2018 - 2019

## Metrics

Publication: 125

Citation (WoS): 551

Citation (Scopus): 444

H-Index (WoS): 13

H-Index (Scopus): 12

## Congress and Symposium Activities

NATO Barış ve Emniyet Programı (SPS projesi G5974) tarafından mali olarak desteklendiği belirtilen "Radyolojik-Nükleer (RN) Tehditlerin Tespiti için Yüksek k-Dielektrik RADFET (High-k Dielectric RADFET for Detection of RN Treats)", Invited Speaker, Nish, Serbia, 2024

Birinci Araştırma Koordinasyon Toplantısı-J02015 CRP Projesi, IAEA-Radyoaktif, Nükleer ve Diğer Kaçak Malzemelerin Tespitinde Nükleer Dedeksiyon Teknolojileri Kullanılarak Güvenli ve Emniyetli Ticaretin Kolaylaştırılmasına İlişkin İlk Araştırma Koordinasyon Toplantısı, Attendee, Vienna, Austria, 2023

Nükleer Emniyet için Radyasyon Dedeksiyonu ve Ölçüm Cihazları: Eğilimler, Zorluklar ve Fırsatlar (Third Technical Meeting on Radiation Detection Instruments for Nuclear Security: Trends, Challenges and Opportunities)", Invited Speaker, Vienna, Austria, 2023

International Atomic Energy Agency- INSEN-Annual Meeting, Attendee, Vienna, Austria, 2023

Third meeting of U.S.-Black Sea Nonproliferation Exchange initiative, The Civil Council on Defense and Security (CCDS) of Georgia and Export Control and Border Security (EXBS) Program of the U.S. Department of State, Invited Speaker, Tbilisi, Georgia, 2023

IAEA Technical Meeting on the Use of Uncrewed Aerial Systems for Radiation Detection and Surveillance, Attendee, Brno, Czech Republic, 2022

US-Black Sea Nonproliferation Exchange initiative implemented by the James Martin Center for Nonproliferation Studies (CNS), Working Group, Washington, United States Of America, 2022

International Atomic Energy Agency- INSEN-Annual Meeting, Attendee, Vienna, Austria, 2022

Radyoaktif Kaynakların Güvenliği ve Emniyeti: Başarılanlar ve Geleceğe Yönelik Çabalar, Attendee, Vienna, Austria, 2022

International Conference on Nuclear Security: Commitments and Actions, Invited Speaker, Vienna, Austria, 2016

## Awards

Yücel H., Certificate of Excellence in Reviewing, Korean Nuclear Society (Kore Nükleer Birliđi), December 2024

Yücel H., Karanfil E. C., TEKNOFEST Nükleer Enerji Teknolojileri Tasarım Yarışması, Alt kategori: Nükleer Enstrümantasyon ve Kontrol Sistemi Tasarım kategorisi, T3 Vakfı, October 2024

Yücel H., Certificate of Excellence in Reviewing, Korean Nuclear Society, December 2017

Yücel H., Certificate of Excellence in Reviewing, Korean Nuclear Society, December 2016